

CLAIMS

1. A luminaire comprising:

at least one lamp;

a reflector surrounding the lamp, a side of said reflector facing towards said lamp being reflecting, said reflector being formed with an emission opening for emission of light; and

an optical element arranged in or before the emission opening for deflecting light beams which enter into and exit from the optical element such that light beams exit from said optical element at an exit angle which is smaller than a predetermined limit exit angle, said optical element having a plate-like core of transparent material which is occupied on one side with microprisms formed by furrows, said microprisms having roots from which said microprisms taper,

said reflector being shaped and arranged with reference to said lamp that in substance only light beams reflected at said reflector can exit said emission opening through said optical element.

2. A luminaire according to claim 1, wherein

said reflector has an inner side towards said lamp which inner side is formed to be diffusely reflecting.

3. A luminaire according to claim 2, wherein

said inner side of the reflector is painted white or is coated with highly reflecting Teflon.

4. A luminaire according to any of claims 1 to 3, wherein

said luminaire includes two elongated lamps arranged parallel to one another and laterally offset with respect to said emission opening.

5. A luminaire according to any of claims 1 to 3, further including

an annular lamp which is arranged laterally outwardly offset with respect to said emission opening.

6. A luminaire according to any of claims 1 to 3, wherein said microprisms of said optical element are arranged in a matrix-like manner.

7. A luminaire according to any of claims 1 to 3, wherein said microprisms have an elongate structure.

8. A luminaire according to any of claims 1 to 3, further including

a second optical element arranged to deflect light beams which enter into and exit from said second optical element, such that said light beams exit from said second optical element at an exit angle which is less than a predetermined limit exit angle, said second optical element being constructed in the same manner as the optical element;

said second optical element being formed with further microprisms which have an elongate structure, and

said second optical element being arranged parallel to said optical element and the microprisms of said second optical element being directed transversely to the microprisms of said optical element.

9. A luminaire according to any of claims 1 to 3 wherein, the furrows between the microprisms are covered over by a reflecting material or are filled with a reflecting material, in order to prevent an entry of the light beams through the furrows into the microprisms.

10. A luminaire comprising:

an elongate lamp;

an elongate reflector configured to surround said lamp, said reflector having an inner side the inner side facing towards

the lamp and being formed to be reflecting, said reflector being formed with an emission opening for emission of light; and

an optical element arranged in or before said emission opening, for deflecting light beams which enter into and exit from said optical element to exit from said optical element at an exit angle which is smaller than a predetermined limit exit angle;

said optical element having a plate-like core of transparent material which on one side is occupied with microprisms which are formed by furrows and which taper, starting from roots thereof,

said inner side of said reflector being formed to be mirror-reflecting, and

said microprisms having an elongate structure and extending transversely of said lamp.

11. A luminaire according to claim 10, wherein

said furrows between said microprisms are covered by a reflecting material or are filled with a reflecting material, in order to prevent an entry of light beams through the furrows into the microprisms.

12. A luminaire, comprising:

at least one lamp; and

a first optical element arranged to deflect light beams which enter into and exit from said first optical to exit from said first optical element at an exit angle which is smaller than a predetermined exit angle,

said first optical element having a plate-like core of transparent material which is occupied on one side with microprisms and furrows, said microprisms having roots from which said microprisms taper,

said microprisms of said first optical element having an elongate structure;

a second optical element arranged to deflect light beams which enter into and exit from said second optical element to exit from said second optical element at an exit angle which is smaller than a predetermined limit exit angle,

said second optical element being of the same construction as said first optical element;

 the microprisms of said second optical element likewise having an elongate structure,

 said second optical element being arranged parallel to said first optical elements, and

 said microprisms of said second optical element extending transversely to said microprisms of said first optical element.

13. A luminaire according to claim 12, wherein

 the furrows between the microprisms of at least one of said first and second optical elements being covered over by means of a reflecting material or being filled with a reflecting material, in order to prevent an entry of the light beams through said furrows into said microprisms.